**K-5 Math Lesson Plan**

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| **Teacher:**  **Beyrer** | | | | **Grade: 5th Grade** | | | **Date(s)**: Sept. 2012 |
| **Unit Title:** Unit 2 - Operations with Whole Numbers and Decimals | | | | | **Corresponding Unit Task:** Food Distribution List, Teach prior to task 2 | | |
| **Essential Question(s):** How can I use division procedures to help me solve problems with large amounts? | | | | | | | |
| **Materials/Resources** | | | | | **Essential Vocabulary** | | |
| **Teacher:**  Math Tool Box, Common Core Instructional Support Tools  <http://www.dpi.state.nc.us/docs/acre/standards/common-core-tools/unpacking/math/5th.pdf> | **Student:**  Pencil, colored pencils, journals, construction paper, index cards, glue, scissors | | | | | Multiplication/multiply, division/divide, dividend, divisor, quotient, rectangular arrays, equations, area models | |
| **Learning Experience** | | | | | | | |
| **8 Mathematical Practices:**  √ 1. Make sense of problems and persevere in solving them.  √ 2. Reason abstractly and quantitatively.  √ 3. Construct viable arguments and critique the reasoning of others.  √ 4. Model with mathematics.  √ 5. Use appropriate tools strategically.  √ 6. Attend to precision.  √ 7. Look for and make use of structure.  √ 8. Look for and express regularity in repeated reasoning. | | | **Common Core State Standards:** 5.NBT.6 Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area  models. | | | | |
| **I Can Statement(s):** I can determine whole number quotients with up to four-digit dividends and one-digit divisors.  I can determine whole number quotients with up to four-digit dividends and two-digit divisors. | | | | |
| **Activating Strategy/Hook:** (How will students become cognitively engaged and focused?)  Complete problem from Math Tool Box “Math Essentials” Week 35 “Using Numbers in Powerful Ways” | | | | |
| **Teacher Directed:** Teacher will model 1715/15 using area models as shown on page 15 CC Instructional Support Tools | | | | |
| **Guided Practice: Pass the Problem** – Teacher posts problems on the board. In groups students solve the problem passing the problem to the next student after completing a step. After the problem is solved the next student checks the answer on a calculator. The next problem will be passed in the reverse order. | | | | |
| **Independent Practice: Teacher posts a problem on the board, overhead or computer. The students will build an area model on construction paper using index cards.** | | | | |
| **Closing/Summarizing Strategy: Teacher tube video – Division Rap -** [**http://www.teachertube.com/viewVideo.php?video\_id=36688**](http://www.teachertube.com/viewVideo.php?video_id=36688) | | | | |
| **Differentiation Strategies** | | | | | | | |
| **Extension** | | **Intervention** | | | | | **Language Development** |
| * Students can use short-division method to solve problems accurately. * What If….   We wanted to combine another state such as South Carolina to our efforts? | | * Teacher may limit the amount of items a student needs to complete to demonstrate proficiency. * Teacher can have the group divide by 10, 12, or other two-digit divisor. * Student may use calculator after each calculation to check for accuracy. * Teacher may designate only one grade level instead of all three grade levels for calculations. * Use an organizer to show steps for division as they work through the problems.   Work with a partner and talk through the process as they solve it. | | | | | * Build background for engaging scenario. * Students can partner read to increase comprehension. * The articles can be broken down into sections giving the students opportunity to write down or highlight key words to demonstrate understanding. * Explain how food that is donated is distributed to various organizations in Guilford County.   Use an organizer to show steps for division as they work through the problems. |
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| **Assessment(s):** Review of the area models created in the independent models | | | | | | | |
| **Teacher Reflection:** (Next steps?)   * What elements of the lesson worked, which elements did not * Which students have achieved mastery * Does any material need to be retaught | | | | | | | |